

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 12435	FOR FURTHER ACTION <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small>	
International application No. PCT/US04/25447	International filing date (<i>day/month/year</i>) 06 August 2004 (06.08.2004)	(Earliest) Priority Date (<i>day/month/year</i>)
Applicant CONTRABAND DETECTION SYSTEMS, LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the Report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (See Box No. III)

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1A



as suggested by the applicant.



as selected by this Authority, because the applicant failed to suggest a figure.



as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

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Box IV TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

NEW ABSTRACT

Diamond based proton target (12) designs for use in contraband detection/identification systems. Such novel Diamond based proton beam targets (12) are used in Electrostatic and RF Acceleration based devices for generating proton beams (10) that impinge on the targets (12) for generating single or multiple monoenergetic gamma ray (15) beams used in detection/measurement of contraband.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01J 35/08

US CL : 378/57, 62, 119, 120, 143; 376/157; 250/ 398; 313/363.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 378/57, 62, 119, 120, 143; 376/157; 250/ 398; 313/363.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NoneElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,215,851 B1 (MEILUNAS et al) 10 April 2001 (10.04.2001), column 3, line 49 - column 4, line 22 and column 5, lines 16-38.	1-8, 10, 11 and 14-17
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Y		22-24 and 27
Y	US 5,784,430 A (SREDNIAWSKI et al) 21 July 1998 (21.07.1998), column 4, lines 40-64.	22-24 and 27
A	US 5,124,554 A (FOWLER et al) 23 June 1992 (23.06.1992), see entire document.	1-27
A	US 5,278, 418 A (BROADHURST et al) 11 January 1994 (11.01.1994) see entire document.	1-27

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier application or patent published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

04 March 2005 (04.03.2005)

Date of mailing of the international search report

04 JAN 2006

Name and mailing address of the ISA/US

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Continuation of B. FIELDS SEARCHED Item 3:

EAST

search terms: high current proton beam target; gamma ray absorption detection